

REMARKS

Claims 1-26 of the present application remain pending. Claims 27-30 are withdrawn.

CLAIM REJECTIONS 35 U.S.C. § 102

Claims 1, 4, 6-7, 9, 14, 17, 19-20, and 22 are rejected under 35 U.S.C. § 102 as being anticipated by Smith (U.S. Patent No. 5,949,997), hereinafter referred to as "Smith." The Applicants respectfully submit that the present invention is not anticipated by Smith. For example, Claim 1 of the present invention recites:

A method for updating contents of a first memory of a computer system, said method comprising the steps of:

- a) receiving new information for said first memory from an external source, said first memory for storing information that is required during startup of said computer system;
- b) storing said new information in a nonvolatile second memory of said computer system;
- c) restarting said computer system without relying on said new information;
- d) verifying said new information stored in said second memory to ensure that it is safe to load said new information into said first memory; and
- e) responsive to said verifying, loading said new information from said second memory into said first memory wherein said new information can be used for a subsequent startup of said computer system.

Claim 14 of the present invention recites:

A computer system comprising:

- a processor;
- a first memory, coupled to said processor, for storing information that is required during startup of said computer system;

an input output device, coupled to said processor, for receiving new information intended for said first memory from an external source;

a second memory, coupled to said processor, for storing said new information, said second memory capable of retaining information stored therein upon a restart of said computer system;

said processor for restarting said computer system without relying on said new information; said processor further for verifying said new information stored in said second memory to ensure that it is safe to load said new information into said first memory; and said processor also for loading said new information from said second memory into said first memory such that said new information can be used for a subsequent startup of said computer system provided that said verifying of said new information yields a positive verification result.

The Applicants respectfully submit that Smith does not teach or suggest loading new information from the second memory into the first memory for use in a subsequent startup of a computer system as recited in Claims 1 and 14. Instead, Smith teaches re-designating the second memory as the new default boot bank. For example, column 4, lines 4-14 of Smith recite (emphasis added):

The SWITCH signal 30 instructs the reset circuit 12 to assert a BOOT SELECT signal 28 to the address decoder 16 to switch the boot sequence from the default bank to the non-default bank, e.g., flash memory bank A 20 to flash memory bank B 22, or vice versa, depending on which bank 20 or 22 is the default. The CONFIRM signal 32 is sent to the reset circuit 12 if the boot sequence is successful. The reset circuit 12 then updates the data in its non-volatile memory to identify the current non-default bank as the default bank for future boot sequences.

The Applicants respectfully submit that re-designating one memory bank or the other as the default memory bank teaches away from the recited claim limitation of loading the new information from the second memory into the first memory. Therefore, the Applicants respectfully submit that the claim limitations recited in independent Claims 1 and 14 of the present invention are not anticipated

or suggested by Smith. Therefore, the Applicants respectfully submit that the objections to Claims 1 and 14 under 35 U.S.C. § 102 are overcome.

Claims 2-13 depend from independent Claim 1 and recite further limitations descriptive of the present invention. Therefore, the Applicants respectfully submit that the objections to Claims 4, 6-7, and 9 under 35 U.S.C. § 102 are also overcome.

Claims 15-26 depend from independent Claim 14 and recite further limitations descriptive of the present invention. Therefore, the Applicants respectfully submit that the objections to Claims 17, 19-20, and 22 under 35 U.S.C. § 102 are also overcome.

CLAIM REJECTIONS 35 U.S.C. § 103(a)

Claims 11 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 5,949,997). As discussed above, the Applicants respectfully submit that the embodiments of the present invention as recited in independent Claims 1 and 14 are neither taught nor suggested by Smith. More specifically, the Applicants respectfully submit that Smith teaches away from the embodiment of the present invention by reciting a method and system which designates a memory bank as the default boot memory bank rather than loading the new information from the second memory into the first memory as recited in Claims 1 and 14 of the present invention. Therefore, the Applicants respectfully submit

that the claim limitations recited in Claims 1 and 14 are neither taught nor suggested by Smith. Additionally, the Applicants respectfully submit that the additional claim limitations recited in Claims 11 and 24 are neither taught nor suggested by Smith. For example, Smith does not teach or suggest receiving new information via wireless communication as recited in Claims 11 and 24.

Thus, the Applicants respectfully submit that there is no teaching or suggestion in Smith, that shows the recited limitations of receiving new information via wireless communication as recited in Claims 11 and 24 of the instant application. Accordingly, the Applicants respectfully submit that the rejection of Claims 11 and 24 under 35 U.S.C § 103(a) is unsubstantiated by the cited art. The Applicant respectfully requests that these rejections be withdrawn or substantiated by art.

Furthermore, the Applicants respectfully submit that the determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the present invention. There must be a teaching or suggestion within the prior art to select particular elements, and to combine them in the way claimed. The Applicants respectfully submit that Smith does not teach or suggest receiving new information via wireless communication as recited in Claims 11 and 24 of the instant application.

Claims 2, 8, 10, 15, 21 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 5,949,997) and Tamori et al (U.S. Patent

No. 5,960,444), hereinafter referred to as "Tamori." As discussed above, the Applicants respectfully submit that the embodiments of the present invention as recited in independent Claims 1 and 14 are neither taught nor suggested by Smith.

More specifically, the Applicants respectfully submit that Smith teaches away from the embodiment of the present invention by reciting a method and system which re-designates which memory bank is the default boot memory bank rather than the claim limitation recited in Claims 1 and 14 of the present invention of loading the new information from the second memory into the first memory.

The cited combination does not suggest the claimed invention because the Applicants respectfully submit that Tamori does not overcome the shortcomings of Smith. For example, the Applicants respectfully submit that Tamori does not teach or suggest the recited claim limitations of Claims 1 and 14 comprising:

- a) receiving new information for said first memory from an external source, said first memory for storing information that is required during startup of said computer system;
- b) storing said new information in a nonvolatile second memory of said computer system;
- c) restarting said computer system without relying on said new information;
- d) verifying said new information stored in said second memory to ensure that it is safe to load said new information into said first memory; and
- e) responsive to said verifying, loading said new information from said second memory into said first memory wherein said new information can be used for a subsequent startup of said computer system.

Thus, a combination of Smith and Tamori would still result in a system which relies upon designating a memory bank as the default boot memory bank

rather than the claim limitation recited in Claims 1 and 14 of the present invention of loading the new information from the second memory into the first memory.

With reference to Claims 2 and 15, the Applicants respectfully submit that Tamori does not teach or suggest the combination of the above recited claim limitations in combination with the additional limitation of:

copying existing information in said first memory to said second memory such that said existing information can be restored into said first memory should said first memory become corrupted.

Therefore, the Applicants respectfully submit that the embodiments of the present invention recited in Claims 2 and 15 are not rendered obvious by Smith alone or in combination with Tamori. Accordingly, the Applicants respectfully submit that the rejection of Claims 2 and 15 under 35 U.S.C § 103(a) is overcome.

With reference to Claims 8 and 21, the Applicants respectfully submit that Tamori does not teach or suggest the combination of the above recited claim limitations of Claims 1 and 14 with the additional limitation of the new information comprises operating system code. Therefore, the Applicants respectfully submit that the embodiments of the present invention recited in Claims 8 and 21 are not rendered obvious by Smith alone or in combination with Tamori. Accordingly, the Applicants respectfully submit that the rejection of Claims 8 and 21 under 35 U.S.C § 103(a) is overcome.

With reference to Claims 10 and 23, the Applicants respectfully submit that Tamori does not teach or suggest the combination of the above recited claim limitations of Claims 1 and 14 in combination with the additional limitation of the second memory comprises a random access memory (RAM). Therefore, the Applicants respectfully submit that the embodiments of the present invention recited in Claims 10 and 23 are not rendered obvious by Smith alone or in combination with Tamori. Accordingly, the Applicants respectfully submit that the rejection of Claims 10 and 23 under 35 U.S.C § 103(a) is overcome.

Claims 3 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 5,949,997) and Hill (U.S. Patent No. 5,987,605), hereinafter referred to as "Hill." As discussed above, the Applicants respectfully submit that the embodiments of the present invention as recited in independent Claims 1 and 14 are neither taught nor suggested by Smith. More specifically, the Applicants respectfully submit that Smith recites a method and system which re-designates which memory bank is the default boot memory bank rather than loading the new information from the second memory into the first memory as recited in Claims 1 and 14 of the present invention.

The Applicants respectfully submit that Hill does not overcome the shortcomings of Smith. Specifically, Hill does not teach or suggest, "loading said new information from said second memory into said first memory wherein said new information can be used for a subsequent startup of said computer system," as recited in Claims 1 and 14 of the present invention. Instead, the Applicants

respectfully submit that Hill teaches away from the embodiment of the present invention in column 2, lines 31-34 which state:

Methods and associated apparatus of the present invention enable selection of either the primary or secondary boot memory device for initial use by the associated programmable device.

Hill further teaches away from the embodiment of the present invention in column 2, lines 43-52 which state:

The boot memory device selected by the reset sending features of the present invention is referred to herein as the active memory (or presently active memory) whereas the memory (or memories) not so selected is referred to as inactive memory (or presently inactive memory). Therefore, either the primary or secondary boot memory device may be deemed the presently active memory by operation of the sensing and selection features of the present invention. In other words, the presently active memory is the one used boot the programmable device.

Thus, the Applicants respectfully submit that both Smith and Hill teach away from the embodiment of the present invention in reciting systems which designate one or the other of a plurality of memory devices as the active (or bootable) memory device rather than loading the new information from the second memory into the first memory as recited in Claims 1 and 14 of the present invention. Claims 3 and 16 depend from independent Claims 1 and 14 respectively. Therefore, the Applicants respectfully submit the embodiments of the present invention recited in Claims 11 and 24 are not rendered obvious by Smith alone or in combination with Hill. Accordingly, the Applicants respectfully submit that the rejection of Claims 11 and 24 under 35 U.S.C § 103(a) is overcome.



Claims 5 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 5,949,997) and Lim (U.S. Patent No. 6,138,233), hereinafter referred to as "Lim." As discussed above, the Applicants respectfully submit that the embodiments of the present invention as recited in independent Claims 1 and 14 are neither taught nor suggested by Smith. More specifically, the Applicants respectfully submit that Smith teaches away from the present invention by reciting a method and system which re-designates which memory bank is the default boot memory bank rather than the claim limitation recited in the present invention of loading the new information from the second memory into the first memory.

The Applicants respectfully submit that Lim does not overcome the shortcomings of Smith. For example, Lim does not teach or suggest the recited claim limitations of Claims 1 and 14 comprising:

- a) receiving new information for said first memory from an external source, said first memory for storing information that is required during startup of said computer system;
- b) storing said new information in a nonvolatile second memory of said computer system;
- c) restarting said computer system without relying on said new information;
- d) verifying said new information stored in said second memory to ensure that it is safe to load said new information into said first memory; and
- e) responsive to said verifying, loading said new information from said second memory into said first memory wherein said new information can be used for a subsequent startup of said computer system.

Thus, a combination of Smith and Lim would still result in a system which relies upon designating a memory bank as the default boot memory bank rather

than the claim limitation recited in Claims 1 and 14 of the present invention of loading the new information from the second memory into the first memory.

With reference to Claims 5 and 18, the Applicants respectfully submit that Lim does not teach or suggest the combination of the above recited claim limitations with the additional limitation of:

step d) comprises the step of checking a power level of said computer system to ensure that said step e) can be completed without a power failure.

Therefore, the Applicants respectfully submit that the embodiments of the present invention recited in Claims 5 and 18 are not rendered obvious by Smith alone or in combination with Lim. Accordingly, the Applicants respectfully submit that the rejection of Claims 5 and 18 under 35 U.S.C § 103(a) is overcome.

Claims 12 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 5,949,997) and Pierre-Louis et al. (U.S. Patent No. 6,421,777), hereinafter referred to as "Pierre-Louis." As discussed above, the Applicants respectfully submit that the embodiments of the present invention as recited in independent Claims 1 and 14 are neither taught nor suggested by Smith. More specifically, the Applicants respectfully submit that Smith teaches away from the present invention by reciting a method and system which re-designates which memory bank is the default boot memory bank rather than the claim limitation recited in the present invention of loading the new information from the second memory into the first memory.

The Applicants respectfully submit that Pierre-Louis does not overcome the shortcomings of Smith. For example, Pierre-Louis does not teach or suggest the recited claim limitations of Claims 1 and 14 comprising:

- a) receiving new information for said first memory from an external source, said first memory for storing information that is required during startup of said computer system;
- b) storing said new information in a nonvolatile second memory of said computer system;
- c) restarting said computer system without relying on said new information;
- d) verifying said new information stored in said second memory to ensure that it is safe to load said new information into said first memory; and
- e) responsive to said verifying, loading said new information from said second memory into said first memory wherein said new information can be used for a subsequent startup of said computer system.

Thus, a combination of Smith and Pierre-Louis would still result in a system which relies upon designating a memory bank as the default boot memory bank rather than the claim limitation recited in Claims 1 and 14 of the present invention of loading the new information from the second memory into the first memory.

With reference to Claims 12 and 25, the Applicants respectfully submit that Pierre-Louis does not teach or suggest the combination of the above recited claim limitations with the additional limitation that the computer system is a personal digital assistant (PDA). The Applicants respectfully submit that the reference in Pierre-Louis to a client system comprising a PDA does not in any manner teach or suggest the recited claim limitations of the present invention. Additionally, Pierre-Louis is directed to a method and apparatus for booting a client data processing system from a set of boot images stored on a server data processing system (Column 1, line 66-column 2, line 1).

Thus, the Applicants respectfully submit that there is no teaching or suggestion in Pierre-Louis, that shows the embodiments of the present invention as recited in Claims 12 and 25. Accordingly, the Applicants respectfully submit that the rejection of Claims 12 and 25 under 35 U.S.C § 103(a) is unsubstantiated by art. The Applicant respectfully requests that these rejections be withdrawn or substantiated by art.

Claims 13 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 5,949,997), Pierre-Louis, and Theimer et al. (U.S. Patent No. 6,421,777), hereinafter referred to as Theimer." As discussed above, the Applicants respectfully submit that the embodiments of the present invention as recited in independent Claims 1 and 14 are neither taught nor suggested by Smith. More specifically, the Applicants respectfully submit that Smith teaches away from the present invention by reciting a method and system which re-designates which memory bank is the default boot memory bank rather than the claim limitation recited in the present invention of loading the new information from the second memory into the first memory.

The Applicants respectfully submit that both Pierre-Louis and Theimer fail to overcome the shortcomings of Smith. For example, neither Pierre-Louis nor Theimer teach or suggest the recited claim limitations of Claims 1 and 14 comprising:

- a) receiving new information for said first memory from an external source, said first memory for storing information that is required during startup of said computer system;
- b) storing said new information in a nonvolatile second memory of said computer system;
- c) restarting said computer system without relying on said new information;
- d) verifying said new information stored in said second memory to ensure that it is safe to load said new information into said first memory; and
- e) responsive to said verifying, loading said new information from said second memory into said first memory wherein said new information can be used for a subsequent startup of said computer system.

Thus, a combination of Smith, Pierre-Louis, and Theimer would still result in a system which relies upon designating a memory bank as the default boot memory bank rather than the claim limitation recited in Claims 1 and 14 of the present invention of loading the new information from the second memory into the first memory.

Accordingly, the Applicants respectfully submit that neither Pierre-Louis not Theimer teach or suggest the above claim limitations with the additional claim limitation recited in Claims 13 and 26 wherein the external source of the new information is a personal digital assistant (PDA).

Thus, the Applicants respectfully submit that there is no teaching or suggestion in Smith alone or in combination with Pierre-Louis and Theimer, that renders obvious the embodiments of the present invention as recited in Claims 13 and 26. Accordingly, the Applicants respectfully submit that the rejection of Claims 13 and 26 under 35 U.S.C § 103(a) is overcome.

CONCLUSION

Based on the arguments presented above, the Applicants respectfully assert that Claims 1-26 overcome the rejections of record and, therefore, the Applicants respectfully solicit allowance of these Claims.

The Applicants have reviewed the references cited but not relied upon. The Applicants did not find these references to show or suggest the present claimed invention: U.S. 6,044,461, U.S. 5,692,190, U.S. 5,022,077.

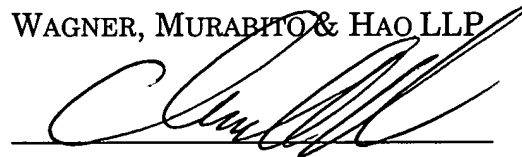
The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Date:

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Respectfully submitted,

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